

ECZEMA (or Atopic Dermatitis)

Atopic dermatitis, also known as eczema, is a skin problem that causes dry, itchy, scaly, red skin. It can occur in infants, children, and adults, and seems more common in certain families.

ECZEMA CAUSES

The cause of eczema is not completely understood, although hereditary factors and the immune system appear to play a strong role. In most people, atopic dermatitis is caused by a genetic dysfunction in the outermost layer of the skin (the epidermis). The epidermis is the first line of defense between the body and the environment. When the epidermis is intact, it keeps environmental irritants, allergens, and microbes from entering the body.

Despite popular belief, in children, eczema is rarely linked to food allergies. If a food allergy is suspected, the child should be evaluated by an allergy specialist.

ECZEMA SYMPTOMS

Most people with eczema develop their first symptoms before age five. Intense itching of the skin, patches of redness, small bumps, and skin flaking are common. Scratching can cause additional skin inflammation, which can further worsen the itching. The itchiness may be more noticeable at nighttime.

Features of eczema vary from one individual to another, and can change over time. Although eczema is usually confined to specific areas of the body, it may affect multiple areas in severe cases:

In infants, there may be red, scaly, and crusted areas on the front of the arms and legs, cheeks, or scalp. The diaper area is not usually affected.

In children and adults, eczema commonly affects the back of the neck, the elbow creases, and the backs of the knees. Other affected areas may include the face, wrists, and forearms. The skin may become thickened and darkened, or even scarred, from repeated scratching.

The skin can also become infected as a result of scratching. Signs of infection include painful red bumps that sometimes contain pus; a healthcare provider should be consulted if this occurs.

Other findings in people with eczema can include:

Dry, scaly skin

Plugged hair follicles causing small bumps to develop, usually on the face, upper arms, and thighs

Increased skin creasing on the palms and/or an extra fold of skin under the eye

Darkening of the skin around the eyes

ECZEMA DIAGNOSIS

There is no specific test used to diagnose eczema, although a skin biopsy is sometimes used. The diagnosis is usually based upon a person's medical history and physical examination.

Factors that strongly suggest eczema include long-standing and recurrent itching, a personal or family history of allergic conditions, and an early age when symptoms began. Other factors include worsened symptoms after exposure to certain triggers or any of the skin findings noted above.

ECZEMA TREATMENT

Eczema is a chronic condition; it typically improves and then flares (worsens) periodically. Some people have no symptoms for several years. Eczema is not curable, although symptoms can be controlled with a variety of self-care measures and drug therapy.

Who treats eczema? — Many patients with atopic dermatitis can initially be treated by their primary care physician. However, a dermatologist may be recommended in certain situations, such as if the condition does not improve with treatment, if certain areas of the body are affected (face or skin folds), and if another condition could be causing symptoms.

Eliminate aggravating factors — Eliminating factors that worsen eczema can help to control the symptoms. Aggravating factors may include:

Heat, perspiration, dry environments

Emotional stress or anxiety

Rapid temperature changes

Exposure to certain chemicals or cleaning solutions, including soaps and detergents, perfumes and cosmetics, wool or synthetic fibers, dust, sand, and cigarette smoke

Keep the skin hydrated

Emollients — Emollients are creams and ointments that moisturize the skin and prevent it from drying out. The best emollients for people with atopic dermatitis are thick creams (such as Eucerin, Cetaphil, Vanicream, or CeraVe) or ointments (such as plain petroleum jelly, plain Vaseline). Emollients are most effective when applied immediately after bathing. Lotions are less effective for moisturizing the skin.

Bathing — It is not clear if showers or baths are better for keeping the skin hydrated. Lukewarm baths or showers can hydrate and cool the skin, temporarily relieving the itching of eczema. An unscented, mild soap or nonsoap cleanser (such as unscented Dove, unscented Kiss My Face, or Cetaphil) should be used sparingly to select areas. An emollient should be applied IMMEDIATELY after bathing or showering to prevent the skin from drying out as a result of water evaporation.

However, hot or long baths (greater than 10 to 15 minutes) and showers should be avoided since they can dry out the skin.

In some cases, dermatologists may recommend dilute bleach baths for people with eczema. These baths help to decrease the number of bacteria on the skin that can cause infections or worsen symptoms. To prepare a bleach bath, $\frac{1}{4}$ to $\frac{1}{2}$ cup of bleach is placed in a full bathtub (about 40 gallons) of water. Bleach baths are usually taken for five to ten minutes twice per week.

Treat skin irritation

Topical steroids — Prescription steroid (corticosteroid) creams and ointments may be recommended to control mild to moderate atopic dermatitis. Steroid creams and ointments are available in a variety of strengths (potencies); the least potent are available without a prescription (eg, hydrocortisone 1%). More potent formulations require a prescription.

Steroid creams or ointments are usually applied to the skin twice per day as needed. These help to reduce symptoms and moisturize the skin. As the skin improves, a non-medicated emollient can be resumed. Strong topical steroids may be needed to control severe flares of eczema; however, these should be used for only short periods of time to prevent thinning of the skin.

Other skin treatments — Newer non-steroid skin treatments for eczema include tacrolimus (Protopic) and pimecrolimus (Elidel). These are effective in controlling eczema, although they do not work as quickly as topical steroids. They are useful in sensitive areas such as the face and groin, and can be used in children over age two.

Oral steroids — Oral steroids (eg, prednisone) occasionally are used to treat a severe flare of eczema, although this treatment is not usually recommended on a regular basis because of potential side effects.

Ultraviolet light therapy (phototherapy) — Ultraviolet light therapy (phototherapy) can effectively control atopic dermatitis. However, this therapy requires a commitment of coming to the office 2-3 times per week for a few months, and is therefore recommended only for people with severe eczema who do not respond to other treatments.

Immunosuppressive or immune modulating drugs — Drugs that weaken the immune system have been used for years for people with severe eczema who do not improve with other treatments. These medicines include prednisone, cyclosporine, methotrexate, azathioprine or mycophenolate. Treatment with these drugs can cause serious side effects, including an increased risk for infection. Now there is a newer targeted immune medicine dupilumab (“Dupixent”) that is thought to be a lot safer as it is not knocking down the whole immune system. There is also evidence that other targeted immune medicines like tofacitinib (“Xeljanz”) might be used in the future.

Control itching

Oral antihistamines — Oral antihistamines sometimes help relieve the itching of eczema. The over-the-counter antihistamine diphenhydramine (Benadryl) and the prescription antihistamine hydroxyzine (Atarax) are most effective for itching caused by eczema, although these drugs can cause drowsiness.

The nonsedating antihistamines such as cetirizine (Zyrtec), loratadine (Claritin) and fexofenadine (Allegra) may relieve symptoms, and are available without a prescription. However, they may not be as helpful for the itch of eczema.